Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 – 39. (Cancelled)

40. (currently amended) A process for treating a fluorine compound-containing gas, comprising:

contacting a gas stream containing at least one fluorine compound selected from the group consisting of (a) a compound of carbon and fluorine, (b) a compound of carbon, hydrogen and fluorine, (c) a compound of carbon, hydrogen, oxygen and fluorine, (d) SF_6, and (e) NF_3, wherein the concentration of the fluorine compound is 0.5 to 10% by volume, with a catalyst comprising alumina ~~as an active compound~~ and 7.2 to 49.4 wt.% of nickel oxide, said catalyst containing a composite oxide of aluminum and nickel;

adding steam or a reaction gas containing steam and oxygen to the gas stream; and

effecting a hydrolysis reaction between the at least one flourine compound and the steam, thereby producing a treated gas containing hydrogen fluoride.

wherein the decomposition activity of the catalyst for fluorine compounds is maintained at a decomposition rate of 80% to 100% ~~about 80% or greater~~.

41. (Previously Presented) A process according to Claim 40, further comprising washing the treated gas with water to remove the hydrogen fluoride.

42. (Previously Presented) A process according to Claim 40, further comprising washing the treated gas with an alkaline solution or slurry to neutralize the hydrogen fluoride and other acidic compounds.

43. (Previously Presented) A process according to Claim 40, further comprising washing the treated gas with water and subsequently neutralizing the water that has absorbed the hydrogen fluoride with an alkaline solution or slurry.

44. (Previously Presented) A process according to Claim 40, wherein the catalyst further comprises zinc oxide, and wherein a ratio of aluminum to a total of nickel and zinc is 50 to 99: 50 to 1 by atom.

45. (Previously Presented) A process according to Claim 40, wherein the catalyst consists essentially of alumina and nickel oxide and a composite oxide of aluminum and nickel.

46. (Previously Presented) A process according to Claim 40, wherein the at least one compound is at least one compound selected from the group consisting of CF_4, C_2F_6, C_3F_8, C_4F_8, C_5F_8, CHF_3, CH_2F_2, CH_3F, C_2HF_5, $C_2H_2F_4$, $C_2H_3F_3$, $C_2H_4F_2$, C_2H_5F, CH_2OCF_2, SF_6, and NF_3.

47. (Previously Presented) A process according to Claim 40, wherein the at least one compound is at least one compound selected from the group consisting of CF_4, C_2F_6, C_3F_8, C_4F_8, C_5F_8, CHF_3, CH_2F_2, CH_3F, C_2HF_5, $C_2H_2F_4$, $C_2H_3F_3$, $C_2H_4F_2$, C_2H_5F, SF_6, and NF_3.

48. (Currently Amended) A method of treating a gas containing a perfluoro-compound, comprising:

contacting the gas containing a ~~fluorine~~ perfluoro-compound in a concentration of 0.5 to 10% by volume at a temperature of 400 to 800°C with a catalyst comprising aluminum oxide ~~as an active component~~ and 7.2 to 49.4 wt.% of nickel oxide, said catalyst containing a composite oxide of aluminum and

nickel, in the presence of steam, whereby the perfluoro-compound is decomposed by hydrolysis to produce a treated gas containing hydrogen fluoride and acidic compounds; and

contacting the treated gas with water to absorb the hydrogen fluoride and the acidic compounds from the treated gas,

wherein the decomposition activity of the catalyst for the perfluoro-compound ~~fluorine compounds~~ is maintained at a decomposition rate of 80% to 100% ~~about 80% or greater~~.

49. (Previously Presented) A process according to Claim 48, wherein the perfluoro compound is at least one compound selected from the group consisting of CF_4, CHF_3, C_2F_6, C_3F_8, C_4F_8, SF_6 and NF_3.

50. (Previously Presented) A process according to Claim 48, wherein the catalyst further comprises zinc oxide, the balance being aluminum oxide.

51. (Previously Presented) A process according to Claim 48, wherein the catalyst consists essentially of alumina and nickel oxide and composite oxide of aluminum and nickel.

52 – 74. (Cancelled)

75. (Withdrawn) A process according to claim 40, wherein the compound in the gas stream is SF_6.

76. (Currently Amended) A process according to claim 40, wherein the compound in the gas stream is a compound of carbon, fluorine and hydrogen.

77. (Withdrawn) A process according to claim 40, wherein the compound in the gas stream is NF_3.

78. (Withdrawn) A process according to claim 40, wherein the compound in the gas stream is at least one member selected from the group

consisting of CHF_3, CH_2F_2, CH_3F, C_2HF_5, $C_2H_2F_4$, $C_2H_3F_3$, $C_2H_4F_2$, C_2H_5F, CH_2OCF_2, SF_6 and NF_3.

79. (Previously Presented) A process according to claim 40, wherein the fluorine compound-containing gas to be treated is used as etchants or cleaners for semiconductors.

80. (Currently Amended) A process for treating a fluorine compound-containing gas, comprising:

contacting a gas stream containing at least one compound ~~consisting~~ of ~~(a)~~ carbon and fluorine, wherein the concentration of the fluorine compound is 2 to 10% by volume, with a catalyst comprising alumina ~~as an active compound~~ and 7.2 to 38.6 wt.% of nickel oxide said catalyst containing a composite oxide of aluminum and nickel;

adding steam or a reaction gas containing steam and oxygen to the gas stream; and

effecting a hydrolysis reaction between the at least one flourine compound and the steam, thereby producing a treated gas containing hydrogen fluoride, wherein a decomposition rate of the at least one compound is maintained at 80% to 100% ~~about 80% or greater~~.

81. (Currently Amended) A process for treating a fluorine compound-containing gas, comprising:

contacting a gas stream containing at least one fluorine compound of ~~consisting of (a)~~ carbon and fluorine at a temperature from about 400 °C to about 800°C, wherein the concentration of the fluorine compound is 0.5 to 10% by volume, with a catalyst comprising alumina ~~as an active compound~~ and 7.2 to 38.6 wt.% of nickel oxide said catalyst containing a composite oxide of aluminum and nickel,

adding steam or a reaction gas containing steam and oxygen to the gas stream; and

effecting a hydrolysis reaction between the at least one compound and the steam, thereby producing a treated gas containing hydrogen fluoride, wherein a decomposition rate of the at least one compound is maintained at 80% to 100% ~~about 80% or greater~~.

82. (Previously Presented) The process of claim 81, wherein said gas stream is contacted with said catalyst at a temperature from about 400 °C to about 700°C.

83. (Currently Amended) A process for treating a fluorine compound-containing gas, comprising:

contacting a gas stream containing at least one fluorine compound of ~~consisting of (a)~~ carbon and fluorine at a temperature from about 400 °C to about 700°C, wherein the concentration of the fluorine compound is 0.5 to 10% by volume, with a catalyst comprising alumina ~~as an active compound~~ and about 20 to about 30 wt.% of nickel oxide said catalyst containing a composite oxide of aluminum and nickel,

adding steam or a reaction gas containing steam and oxygen to the gas stream; and

effecting a hydrolysis reaction between the at least one fluorine compound and the steam, thereby producing a treated gas containing hydrogen fluoride, wherein a decomposition rate of the at least one compound is maintained at 95% to 100% ~~about 95% or greater~~.

84. (Previously Presented) The process of claim 83, wherein said gas stream is contacted with said catalyst at a temperature from about 400 °C to about 700°C.

85. (Previously Presented) The process of claim 40, wherein said decomposition activity of the catalyst for fluorine compounds is maintained by the nickel oxide additive.

86. (Previously Presented) The process of claim 48, wherein said decomposition activity of the catalyst for fluorine compounds is maintained by the nickel oxide additive.